

Mr. Charles Reeves
PC Indiana Synthetic Fuels, #2, LLC
7244 Brammer Road
Lynnville, Indiana 47619

Re: 173-13829-00041
First Amendment to CP 173-10815-00041

Dear Mr. Reeves:

PC Indiana Synthetic Fuels #2, LLC was issued a construction permit on August 13, 1999 for a coal pelletizing operation. A letter requesting to amend the permit to increase the throughput rate was received on January 25, 2001. The permit is hereby administratively amended as follows (strikeout used to indicate deleted language and bold used to indicate new language):

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

- (a) two (2) synthetic fuel pellet production and curing operations, identified as EP02a and EP02b, consisting of:
 - (1) two (2) liquid propane gas fired vibrating curing furnaces using natural gas as a backup fuel, identified as Dryers #1 and #2, respectively, each with a maximum capacity of ~~65~~ **140** tons of pellets per hour, each with a rated heat input of 40 million British thermal units (MMBtu) per hour, each using two (2) cyclones as an integral part of the process, and each exhausting collectively through one (1) scrubber to stack SV02a and SV02b, respectively;
- (b) conveying for the synthetic fuel pellet production operations, with a maximum capacity of ~~430~~ **280** tons per hour, consisting of:
 - (1) one (1) pellet conveyor (**EP01**), one (1) dry pellet conveyor (**EP03**), one (1) loadout conveyor (**EP06**) ~~identified as EP01, EP03, and EP06~~, each with a maximum capacity of ~~430~~ **280** tons of pellets per hour and exhausting fugitively;
- (c) unloading for the synthetic fuel pellet production operations, with a maximum capacity of ~~430~~ **280** tons per hour, consisting of:
 - (1) two (2) collection hopper, identified as EP05 and EP07, each with a maximum capacity of ~~430~~ **280** tons of pellets per hour and exhausting fugitively;
 - (2) one (1) truck loading operation, identified as EP08, with a maximum capacity of ~~430~~ **280** tons of pellets per hour and exhausting fugitively;

- (d) conveying for the synthetic fuel pellet production operations, with a maximum capacity of ~~130~~ **280** tons of pellets per hour, consisting of:
 - (1) two (2) feed bins with variable speed feed conveyors (**EP14 and EP15**), one (1) feed conveyor (**EP11**), one (1) mixer feed conveyor (**EP12**), two (2) pugmill conveyors (**EP13 and EP17**), one (1) mixer product conveyor (**EP18**), two (2) pellet mill feed conveyors (**EP19 and EP20**), one (1) finished product collecting conveyor (**EP09**), ~~one (1) tripper conveyor~~, **one (1) pellet transfer conveyor (EP10)**, one (1) underpile reclaim conveyor (**EP21**), ~~one (1) feed conveyor~~, each with a maximum capacity of ~~130~~ **280** tons of pellets per hour and exhausting fugitively;
- ~~(e) unloading for the synthetic fuel pellet production operations, with a maximum capacity of 130 tons of pellets per hour, consisting of:~~
 - ~~(1) two (2) loading hoppers, each with a maximum capacity of 130 tons of pellets per hour and exhausting fugitively;~~
- ~~(e)~~(f) screening for the synthetic fuel pellet production operations, with a maximum capacity of ~~130~~ **280** tons of pellets per hour, consisting of:
 - (1) one (1) plant protection screen, one (1) recycle material screen, one (1) plant protection screen (**EP16**), each with a maximum capacity of ~~130~~ **280** tons of pellets per hour and exhausting fugitively; and
- ~~(f)~~(g) one (1) radial stacker, identified as EP04, for the synthetic fuel pellet production operations, with a maximum capacity of ~~130~~ **280** tons of pellets per hour and exhausting fugitively.

SECTION D.1

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description [326 IAC 2-7-5(15)]

- (a) two (2) synthetic fuel pellet production and curing operations, identified as EP02a and EP02b, consisting of:
 - (1) two (2) liquid propane gas fired vibrating curing furnaces using natural gas as a backup fuel, identified as Dryers #1 and #2, respectively, each with a maximum capacity of ~~65~~ **140** tons of pellets per hour, each with a rated heat input of 40 million British thermal units (MMBtu) per hour, each using two (2) cyclones as an integral part of the process, and each exhausting collectively through one (1) scrubber to stack SV02a and SV02b, respectively;
- (b) conveying for the synthetic fuel pellet production operations, with a maximum capacity of ~~430~~ **280** tons per hour, consisting of:
 - (1) one (1) pellet conveyor (**EP01**), one (1) dry pellet conveyor (**EP03**), one (1) loadout conveyor identified as EP01, EP03, and EP06, each with a maximum capacity of ~~430~~ **280** tons of pellets per hour and exhausting fugitively;
- (c) unloading for the synthetic fuel pellet production operations, with a maximum capacity of ~~430~~ **280** tons per hour, consisting of:
 - (1) two (2) collection hopper, identified as EP05 and EP07, each with a maximum capacity of ~~430~~ **280** tons of pellets per hour and exhausting fugitively;
 - (2) one (1) truck loading operation, identified as EP08, with a maximum capacity of ~~430~~ **280** tons of pellets per hour and exhausting fugitively;
- (d) conveying for the synthetic fuel pellet production operations, with a maximum capacity of ~~430~~ **280** tons of pellets per hour, consisting of:
 - (1) two (2) feed bins with variable speed feed conveyors (**EP14 and EP15**), one (1) feed conveyor (**EP11**), one (1) mixer feed conveyor (**EP12**), two (2) pugmill conveyors (**EP13 and EP17**), one (1) mixer product conveyor (**EP18**), two (2) pellet mill feed conveyors (**EP19 and EP20**), one (1) finished product collecting conveyor (**EP09**), ~~one (1) tripper conveyor~~, one (1) pellet transfer conveyor (**EP10**), one (1) underpile reclaim conveyor (**EP21**), ~~one (1) feed conveyor~~ one (1) loadout conveyor (**EP06**), each with a maximum capacity of ~~430~~ **280** tons of pellets per hour and exhausting fugitively;
- ~~(e) unloading for the synthetic fuel pellet production operations, with a maximum capacity of 130 tons of pellets per hour, consisting of:~~
 - ~~(1) two (2) loading hoppers, each with a maximum capacity of 130 tons of pellets per hour and exhausting fugitively;~~
- (e)(f) screening for the synthetic fuel pellet production operations, with a maximum capacity of ~~430~~ **280** tons of pellets per hour, consisting of:
 - (1) one (1) plant protection screen, one (1) recycle material screen, one (1) plant protection screen (**EP16**), each with a maximum capacity of ~~430~~ **280** tons of pellets per hour and exhausting fugitively; and
- (f)(g) one (1) radial stacker, identified as EP04, for the synthetic fuel pellet production operations, with a maximum capacity of ~~430~~ **280** tons of pellets per hour and exhausting fugitively.

Emission Limitations and Standards

D.1.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]

The particulate matter (PM) from the synthetic fuel pellet production and curing operation shall be limited by the following:

The allowable emissions for each facility are as follows:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40$$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Emission Unit	Process Weight Rate (tons/hr)	Allowable PM Emissions (326 IAC 6-3-2) (lb/hr)
synthetic fuel pellet production and curing operation, EP02a	65.00 140	47.05 54.72
synthetic fuel pellet production and curing operation, EP02b	65.00 140	47.05 54.72
Radial Stacker	130.00	53.95
Screens	130.00	53.95
Existing Loading	130.00	53.95
New Loading	130.00	53.95
Existing Conveyors	130.00	53.95
New Conveyors	130.00	53.95

The synthetic fuel pellet production and curing operation utilizes wet scrubbers for particulate matter control on the other emission units to comply with 326 IAC 6-3-2 (Process Operations), and the PM emissions from the rest of the source are in compliance with 326 IAC 6-3-2.

D.1.2 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

The dual cyclones and wet scrubber for the two (2) synthetic fuel pellet production and curing operations, identified as EP02a and EP02b shall be in operation at all times. These PM control devices are required to limit the potential to emit of PM to less than 250 tons per twelve (12) consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable. **For the fuel pellet production and curing operations, EP02a and EP02b, the particulate matter less than 10 microns emissions shall be limited to less than 0.12 pounds per ton. For the radial stacker, screens, existing loading, new loading, existing conveyors, and new conveyors, the particulate matter less than 10 microns emissions shall be limited to less than 0.08 pounds per ton. Compliance with these limits make 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable. Particulate matter equals particulate matter less than 10 microns. For the radial stacker, screens, existing loading, new loading, existing conveyors, and new conveyors, compliance with this limit will also satisfy rule 6-3.**

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment to the construction permit.

Pursuant to Contract No. A305-0-00-36, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Mr. Mike Pring, ERG, P.O. Box 2010, Morrisville, North Carolina 27560, or call (919) 468-7840 to speak directly to Mr. Pring. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

ERG/MP

cc: File - Warrick County
U.S. EPA, Region V
Warrick County Health Department
Southwest Regional Office
Air Compliance Section Inspector - Scott Anslinger
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Construction Permit Amendment

Source Background and Description

Source Name:	PC Indiana Synthetic Fuels #2, LLC
Source Location:	7244 Brammer Road, Lynnville, IN 47619
County:	Warrick
SIC Code:	2999
Operation Permit No.:	173-10815-00041
Amendment Permit No.:	173-13829-00041
Permit Reviewer:	ERG/MP

The Office of Air Quality (OAQ) has reviewed an application from PC Indiana Synthetic Fuels #2, LLC relating to the modification to a synthetic fuel pellet production and curing operation.

History

On January 25, 2001, PC Indiana Synthetic Fuels #2, LLC, submitted an application to the OAQ requesting to increase throughput at their existing plant. PC Indiana Synthetic Fuels #2, LLC was issued a construction permit on August 13, 1999.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the amendment be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on January 25, 2001.

Emission Calculations

The calculations submitted by the applicant have been verified and found to be accurate and correct. These calculations are provided in Appendix A of this document (Appendix A, pages 1 through 3.)

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	32,591.67
PM-10	32,591.67
SO ₂	0
VOC	0
CO	0
NO _x	0

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the emission data from Construction Permit 173-9594-00041 issued on June 23, 1998.

Pollutant	Actual Emissions (tons/year)
PM	55.05
PM-10	55.05
SO ₂	0
VOC	0
CO	0
NO _x	0
HAP	0

County Attainment Status

The source is located in Warrick County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Warrick County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Warrick County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, 40 CFR 52.21, or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD, Part 70 or Emission Offset Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	120.9
PM10	120.9
SO ₂	0.01
VOC	1.00
CO	14.7
NO _x	35.4

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.
- (b) These emissions were based on the emissions summary from Construction Permit 173-10815-00041 issued on August 13, 1999

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units.

Process/facility	Limited Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
two (2) synthetic fuel pellet production and curing operations, (EP02a and EP02b)	71.5	71.5	0.00	0.00	0.00	0.00	0.00
Radial Stacker (EP04)	6.13	6.13	0.00	0.00	0.00	0.00	0.00
Screens (EP16)	4.91	4.91	0.00	0.00	0.00	0.00	0.00
Loading (EP08)	0.92	0.92	0.00	0.00	0.00	0.00	0.00
Conveyors	36.84	36.84	0.00	0.00	0.00	0.00	0.00

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Total Emissions	120.3	120.3	0.00	0.00	0.00	0.00	0.00

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

- (a) This source is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.250 through 60.253, Subpart Y), due to the type of operation at the source. This synthetic fuel pellet production and curing operation is not a coal preparation plant as it does not prepare coal by one or more of the following processes: breaking, crushing, screening, wet or dry cleaning, and thermal drying.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of PM. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the synthetic fuel pellet production and curing operation shall be limited by the following:

The allowable emissions for each facility are as follows:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40$$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Emission Unit	Process Weight Rate (tons/hr)	Uncontrolled PM Emissions (lb/hr)	Control Efficiency %	Controlled PM Emissions (lb/hr)	Allowable PM Emissions (326 IAC 6-3-2) (lb/hr)
synthetic fuel pellet production and curing operation, EP02a	140	7,420	99.78%	16.32	54.72
synthetic fuel pellet production and curing operation, EP02b	140	7,420	99.78%	16.32	54.72
Radial Stacker	280	2.8	0	2.8	62.22
Screens	280	2.24	0	2.24	62.22
Loading	280	0.56	25	2.24	62.22
Conveyors	280	36.42	50	18.21	62.22

The synthetic fuel pellet production and curing operation utilizes wet scrubbers for particulate matter control on the synthetic fuel pellet production and curing operations identified as EP02a and EP02b to comply with 326 IAC 6-3-2 (Process Operations). The particulate matter emissions from the rest of the source are in compliance with 326 IAC 6-3-2 without any add on control equipment.

326 IAC 6-4 (Fugitive Dust Emissions)

Pursuant to this rule, the Permittee shall be in violation of 326 IAC 6-4 (Fugitive Dust Emissions) if any criteria specified in 326 IAC 6-4-2(1) through (4) are violated. Observations of visible emissions crossing the property line of the source at or near ground level must be made by a qualified representative of IDEM [326 IAC 6-4-5(c)].

326 IAC 6-5 (Fugitive Particulate Matter Emissions Limitations)

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emissions Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on March 23, 1998. This plan consists of:

- (a) wet suppression of dust from unpaved haul roads on an as needed basis.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Quality (OAQ) Construction Permit Application Form Y.

None of the listed air toxics will be emitted from this source.

Proposed Changes

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

- (a) two (2) synthetic fuel pellet production and curing operations, identified as EP02a and EP02b, consisting of:
 - (1) two (2) liquid propane gas fired vibrating curing furnaces using natural gas as a backup fuel, identified as Dryers #1 and #2, respectively, each with a maximum capacity of ~~65~~ **140** tons of pellets per hour, each with a rated heat input of

40 million British thermal units (MMBtu) per hour, each using two (2) cyclones as an integral part of the process, and each exhausting collectively through one (1) scrubber to stack SV02a and SV02b, respectively;

- (b) conveying for the synthetic fuel pellet production operations, with a maximum capacity of ~~430~~ **280** tons per hour, consisting of:
 - (1) one (1) pellet conveyor (**EP01**), one (1) dry pellet conveyor (**EP03**), one (1) loadout conveyor (**EP06**) ~~identified as EP01, EP03, and EP06~~, each with a maximum capacity of ~~430~~ **280** tons of pellets per hour and exhausting fugitively;
- (c) unloading for the synthetic fuel pellet production operations, with a maximum capacity of ~~430~~ **280** tons per hour, consisting of:
 - (1) two (2) collection hopper, identified as EP05 and EP07, each with a maximum capacity of ~~430~~ **280** tons of pellets per hour and exhausting fugitively;
 - (2) one (1) truck loading operation, identified as EP08, with a maximum capacity of ~~430~~ **280** tons of pellets per hour and exhausting fugitively;
- (d) conveying for the synthetic fuel pellet production operations, with a maximum capacity of ~~430~~ **280** tons of pellets per hour, consisting of:
 - (1) two (2) feed bins with variable speed feed conveyors (**EP14 and EP15**), one (1) feed conveyor (**EP11**), one (1) mixer feed conveyor (**EP12**), two (2) pugmill conveyors (**EP13 and EP17**), one (1) mixer product conveyor (**EP18**), two (2) pellet mill feed conveyors (**EP19 and EP20**), one (1) finished product collecting conveyor (**EP09**), ~~one (1) tripper conveyor~~, **one (1) pellet transfer conveyor (EP10)**, one (1) underpile reclaim conveyor (**EP21**), ~~one (1) feed conveyor~~, each with a maximum capacity of ~~430~~ **280** tons of pellets per hour and exhausting fugitively;
- ~~(e) unloading for the synthetic fuel pellet production operations, with a maximum capacity of 430 tons of pellets per hour, consisting of:~~
 - ~~(1) two (2) loading hoppers, each with a maximum capacity of 430 tons of pellets per hour and exhausting fugitively;~~
- (e)(f)** screening for the synthetic fuel pellet production operations, with a maximum capacity of ~~430~~ **280** tons of pellets per hour, consisting of:
 - (1) one (1) plant protection screen, one (1) recycle material screen, one (1) plant protection screen (**EP16**), each with a maximum capacity of ~~430~~ **280** tons of pellets per hour and exhausting fugitively; and
- (f)(g)** one (1) radial stacker, identified as EP04, for the synthetic fuel pellet production operations, with a maximum capacity of ~~430~~ **280** tons of pellets per hour and exhausting fugitively.

SECTION D.1

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description [326 IAC 2-7-5(15)]

- (a) two (2) synthetic fuel pellet production and curing operations, identified as EP02a and EP02b, consisting of:
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- ~~(e) unloading for the synthetic fuel pellet production operations, with a maximum capacity of 130 tons of pellets per hour, consisting of:~~
 - ~~(1) two (2) loading hoppers, each with a maximum capacity of 130 tons of pellets per hour and exhausting fugitively;~~
- ~~(e)~~(f) screening for the synthetic fuel pellet production operations, with a maximum capacity of ~~430~~ **280** tons of pellets per hour, consisting of:
 - (1) one (1) plant protection screen, one (1) recycle material screen, one (1) plant protection screen (**EP16**), each with a maximum capacity of ~~430~~ **280** tons of pellets per hour and exhausting fugitively; and
- ~~(f)~~(g) one (1) radial stacker, identified as EP04, for the synthetic fuel pellet production operations, with a maximum capacity of ~~430~~ **280** tons of pellets per hour and exhausting fugitively.

Emission Limitations and Standards

D.1.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]

The particulate matter (PM) from the synthetic fuel pellet production and curing operation shall be limited by the following:

The allowable emissions for each facility are as follows:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40$$

where E = rate of emission in pounds per hour and
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Emission Unit	Process Weight Rate (tons/hr)	Allowable PM Emissions (326 IAC 6-3-2) (lb/hr)
synthetic fuel pellet production and curing operation, EP02a	65.00 140	47.05 54.72
synthetic fuel pellet production and curing operation, EP02b	65.00 140	47.05 54.72
Radial Stacker	430.00	53.95
Screens	430.00	53.95
Existing Loading	430.00	53.95
New Loading	430.00	53.95
Existing Conveyors	430.00	53.95
New Conveyors	430.00	53.95

The synthetic fuel pellet production and curing operation utilizes wet scrubbers for particulate matter control on the other emission units to comply with 326 IAC 6-3-2 (Process Operations), and the PM emissions from the rest of the source are in compliance with 326 IAC 6-3-2.

D.1.2 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

The dual cyclones and wet scrubber for the two (2) synthetic fuel pellet production and curing operations, identified as EP02a and EP02b shall be in operation at all times. These PM control devices are required to limit the potential to emit of PM to less than 250 tons per twelve (12) consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable. **For the fuel pellet production and curing operations, EP02a and EP02b, the particulate matter less than 10 microns emissions shall be limited to less than 0.12 pounds per ton. For the radial stacker, screens, existing loading, new loading, existing conveyors, and new conveyors, the particulate matter less than 10 microns emissions shall be limited to less than 0.08 pounds per ton. Compliance with these limits make 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable. Particulate matter equals particulate matter less than 10 microns. For the radial stacker, screens, existing loading, new loading, existing conveyors, and new conveyors, compliance with this limit will also satisfy rule 6-3.**

Conclusion

The construction and operation of this modification to a synthetic fuel pellet production and curing operation shall be subject to the conditions of the attached proposed Construction Permit Amendment 173-13829-00041.